

Amendments to the Claims

Please amend the claims to read as follows:

1-97. (Canceled)

98. (Newly Added) A method of selecting a dose of an anti-oxidant composition for administration to a human, the method comprising assessing occurrence in the human's genome of disorder-associated polymorphisms selected from the group consisting of

- a) a polymorphism manifested as a change from an alanine residue to a valine residue at amino acid residue 9 of MnSOD;
- b) a polymorphism manifested as a change from an isoleucine residue to a thymine residue at amino acid residue 58 of MnSOD;
- c) a polymorphism manifested as a change from a valine residue to a glutamic acid residue at amino acid residue 7 of CZSOD;
- d) a polymorphism manifested as a change from a cysteine residue to a phenylalanine residue at amino acid residue 6 of CZSOD;
- e) a polymorphism manifested as a change from a cytosine residue to a thymine residue at nucleotide residue -262 of the catalase gene;
- f) a polymorphism in the hGPX1 gene manifested as a change from a proline residue to a leucine residue at amino acid residue 198 of glutathione peroxidase;
- g) a polymorphism in the GSTP 1 gene manifested as a change from a valine residue to an isoleucine residue at amino acid residue 105 of glutathione peroxidase;
- h) a polymorphism manifested as a change from a thymine residue to a cytosine residue at nucleotide residue -107 of the gene which encodes paraoxonase;
- i) a polymorphism manifested as a change from a cytosine residue to a thymine residue at nucleotide residue 242 of the gene encoding NAD(P)H:quinone oxidoreductase;

- j) a polymorphism manifested as a change from a thymine residue to a cytosine residue at nucleotide residue 113 in exon 3 of the gene which encodes epoxide hydrolase;
- k) a polymorphism manifested as a change from a guanine residue to an adenine residue at nucleotide residue -463 of the gene which encodes myeloperoxidase;
- l) a polymorphism manifested as a change to an adenine residue at nucleotide residue -238 of the gene which encodes tumor necrosis factor alpha;
- m) a polymorphism manifested as a change to an adenine residue at nucleotide residue -308 of the gene which encodes tumor necrosis factor alpha;
- n) a polymorphism manifested as a change from a cytosine residue to a thymine residue at nucleotide residue 242 of the phox gene encoding the NADH/NADPH oxidase p22 subunit;
- o) a polymorphism manifested as a 27 base pair repeat in intron 4 of the gene encoding nitric oxide synthase;
- p) a polymorphism manifested as a change from an adenine residue to a guanine residue at nucleotide residue -290 of the gene encoding cytochrome P450
- q) the polymorphism designated the ApoE4 allele of the ApoE gene; and
- r) a polymorphism manifested as a change from a cytosine residue to a thymine residue at nucleotide residue 699 of the gene encoding cystathionine betasynthase.

99. (Newly added) The method of claim 98, comprising assessing occurrence in the human's genome of disorder-associated polymorphisms e), f), at least one of a) and b), and at least one of c) and d).

100. (Newly added) The method of claim 98, comprising assessing occurrence in the human's genome of each of disorder-associated polymorphisms a) through f).
101. (Newly added) The method of claim 98, comprising assessing occurrence in the human's genome of disorder-associated polymorphisms in at least four of a) through r).
102. (Newly added) The method of claim 98, comprising assessing occurrence in the human's genome of disorder-associated polymorphisms in at least six of a) through r).
103. (Newly added) The method of claim 98, comprising assessing occurrence in the human's genome of disorder-associated polymorphisms in at least ten of a) through r).
104. (Newly added) The method of claim 98, comprising assessing occurrence in the human's genome of disorder-associated polymorphisms in at least fifteen of a) through r).